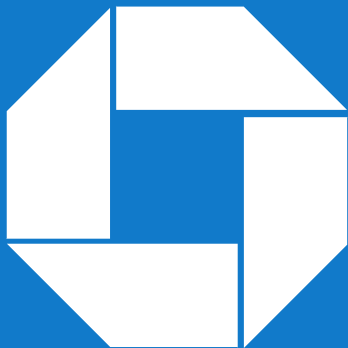


# Exhibit A

**CHASE**



**Wapp Tech Limited Partnership and Wapp Tech Corp.**

**v.**

**JPMorgan Chase Bank, N.A.**

Civil Action No. 4:23-cv-01137-ALM

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# **Claim Construction Hearing**

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November 8, 2024

# “Emulate” Is Different Than “Simulate”

Case 4:23-cv-01137-ALM Document 73-1 Filed 11/08/24 Page 3 of 57 PageID #: 7940

“emulate”	
JPMC’s Construction	Wapp’s Construction
“model the hardware [of]”	Plain meaning

“simulate”	
JPMC’s Construction	Wapp’s Construction
“represent features of”; <i>different than emulate</i>	“Emulate”

1. A system for developing an application for a mobile device comprising:
  - a software authoring interface configured to simultaneously visually emulate, via one or more profile display windows, a plurality of network characteristics indicative of performance of the mobile device when executing the application; wherein the software authoring interface is further configured to simulate a network connection state encountered by the mobile device.





800



US 9,298,864 B2

## United States Patent

Poulin

(10) Patent No.: **US 9,298,864 B2**  
(45) Date of Patent: **\*Mar. 29, 2016**

(54) **SYSTEM INCLUDING NETWORK SIMULATION FOR MOBILE APPLICATION DEVELOPMENT**

(71) Applicant: **WAPP Tech Corp.**, Red Deer (CA)

(72) Inventor: **Doman P. Poulin**, Kelowna (CA)

(73) Assignee: **WAPP TECH CORP.**, Red Deer (CA)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.  
This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/084,321**  
(22) Filed: **Nov. 19, 2013**  
(65) **Priority Publication Data**  
US 2014/0081616 A1 Mar. 20, 2014

**Related U.S. Application Data**  
(60) Division of application No. 12/705,913, filed on Feb. 15, 2010, now Pat. No. 8,589,140, and a continuation-in-part of application No. 11/449,958, filed on Jun. 9, 2006, now Pat. No. 7,913,910.  
(60) Provisional application No. 61/152,934, filed on Feb. 16, 2009, provisional application No. 60/689,101, filed on Jun. 10, 2005.

(51) **Int. Cl.**  
**G06F 8/455** (2006.01)  
**G06F 17/50** (2006.01)

**GRF 11/34** (2006.01)

**GRF 9/44** (2006.01)

(52) **U.S. CL.**  
**CPC** **GRF 17/5022** (2013.01); **GRF 8/10** (2013.01); **GRF 8/71** (2013.01); **GRF 11/5457** (2013.01); **GRF 9/425** (2013.01); **GRF 2/201/86** (2013.01)

(58) **Field of Classification Search**  
USPC 700/22, 23, 24, 717/105, 129, 370/254  
See application file for complete search history.

(56) **References Cited**  
**U.S. PATENT DOCUMENTS**

7,813,910 B1 *	10/2010	Poulin	703/22
8,014,995 B2 *	9/2011	Maryyla et al.	703/23
8,108,201 B2 *	1/2012	Ragunath et al.	703/24
8,150,675 B1 *	4/2012	Ottmann et al.	703/23
8,255,878 B2 *	8/2012	Ash et al.	717/129
8,332,203 B1 *	12/2012	Poulin	703/22
8,589,140 B1 *	11/2013	Poulin	703/22
8,694,954 B2 *	4/2014	Ottar	717/105
8,885,513 B2 *	11/2014	Fewing	370/254
2014/0081616 A1 *	3/2014	Poulin	703/22

\* cited by examiner

**Primary Examiner** — Thil Phan

(57) **ABSTRACT**

A system, method and software product emulate and profile an application playing on a mobile device. The mobile device is emulated using a model based upon characteristics related to performance of the mobile device. The application is played and monitored within the model to determine resource utilization of the application for the mobile device.

**50 Claims, 23 Drawing Sheets**

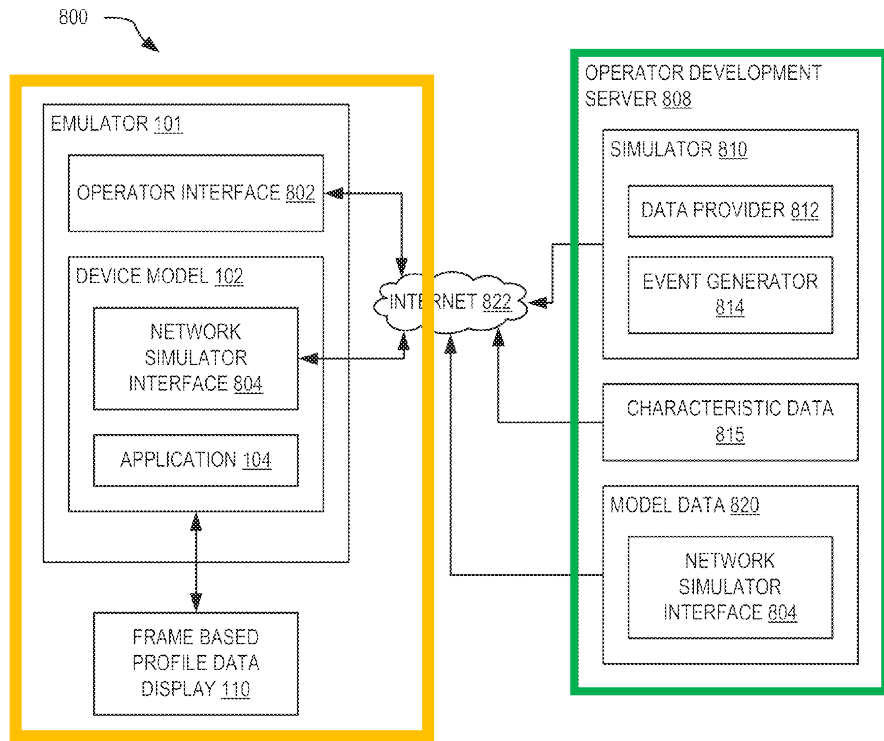
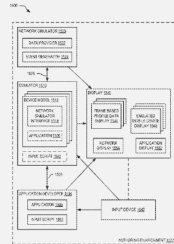


FIG. 8



(12) **United States Patent**  
**Poulin**

(54) **SYSTEM INCLUDING NETWORK  
SIMULATION FOR MOBILE APPLI-  
CATION DEVELOPMENT**

(71) Applicant: WAPP Tech Corp, Red Deer

(72) Inventor: Donovan P. Poulin, Kelowna

(73) Assignee: WAPP TECH CORP., Red De

(\*) Notice: Subject to any disclaimer, the  
patent is extended or adjusted  
U.S.C. 154(b) by 0 days.  
This patent is subject to a ter-  
minator.

(21) Appl. No.: 14/084,321

(22) Filed: Nov. 19, 2013

(65) **Priority Publication Data**  
US 2014/0081616 A1 Mar. 20, 2014

**Related U.S. Application Data**

(60) Division of application No. 12/705,913, filed  
15, 2010, now Pat. No. 8,589,140  
continuation-in-part of application No. 11  
filed on Jun. 9, 2006, now Pat. No. 7,913,344

(60) Provisional application No. 61/152,934, filed  
16, 2009, provisional application No. 6  
filed on Jun. 10, 2005.

(51) **Int. Cl.**  
**G06F 8/455** (2006:01)  
**G06F 17/58** (2006:01)



application 104. Emulator 101 includes model algorithms 148 and profiler 106. Model algorithms 148 represent one or more algorithms that operate to generate mobile device model 102 to emulate mobile device 114 while executing application 104. Specifically, model algorithms 148 define operation of mobile device 114 based upon mobile device characteristics 115.

TABLE 1

Mobile Device Characteristics

Parameter	Value
Name	NOKIA 3650
Processor	ARM 4T
Processor Speed	104 MHz
Storage Access	5.88
Speed	files/second
RAM Size	256 MB
Storage Size	512 MB
Display Width	256
Display Height	394
Pixel Depth	24
Processor Availability	60%
RAM Availability	60%
Storage Availability	40%

Table 1 Mobile Device Characteristics', shows exemplary characteristics that may be used to specify hardware attributes and performance of model 102 to emulate mobile device 114.

In one embodiment, mobile device characteristics 115 may be supplied with a device model specific to one mobile device. For example, a manufacturer may supply a combined device model and characteristics for each mobile device 114. Emulator 101 may then utilize the combined device model as device model 102.

864 Patent, 5:22-27

characteristics 115, within memory 132. Emulator 101 then loads and plays application 104 within model 102. In all embodiments described herein, it is to be noted that emulation is performed on a processor extrinsic to the mobile device being emulated. Emulator 101 may load all or part of profiler

864 Patent, 5:37-41

864 Patent, 5:11-38



864 Patent, 10:51-65



JPMC’s Construction	Wapp’s Construction
“Frame based application”	Plain and ordinary meaning

The term “application” appears in all asserted claims

1. A system for developing an application for a mobile device comprising:  
a software authoring interface configured to simultaneously visually emulate, via one or more profile display windows, a plurality of network characteristics indicative of performance of the mobile device when executing the application; wherein the software authoring interface is further configured to simulate a network connection state encountered by the mobile device.

“[Patentee] seems to suggest that lexicography requires a statement in the form “**I define \_\_\_\_\_ to mean \_\_\_\_\_,**” **but such rigid formalism is not required.**”

*Astrazeneca AB v. Mut. Pharm. Co.*, 384 F.3d 1333, 1339 (Fed. Cir. 2004)

“A patent applicant **need not** expressly **state ‘my invention does not include X’** to indicate his exclusion of X from the scope of his patent.”

*Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016)

“The **interchangeable use** of the two terms is **akin to a definition** equating the two.”

*Edwards Lifesci. LLC v. Cook Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009)

Inventor equated “application **104**” and “frame based application **104**” in the same sentence:

Profiler **106** monitors playing of frame based application **104** within model **102** to estimate resource usage of application **104** and generates a frame based profile data display **110**. Frame based profile data display **110** may allow a user of system **100** to identify areas within application **104** that would exceed resources of mobile device **114**.

192 Patent, 4:66-5:4



Inventor equated “application **104**” and “frame based application **104**” in the same paragraph:

In one example of operation, development tool **112** is used to develop frame based application **104**. Application **104** is transferred to emulator **101** for playing within mobile device model **102** to estimate resource usage of application **104** when played on mobile device **114**. Upon playing application **104** within model **102**, emulator **101** utilizes profiler **106** to determine resource utilization of application **104** based upon mobile device characteristics **115**.

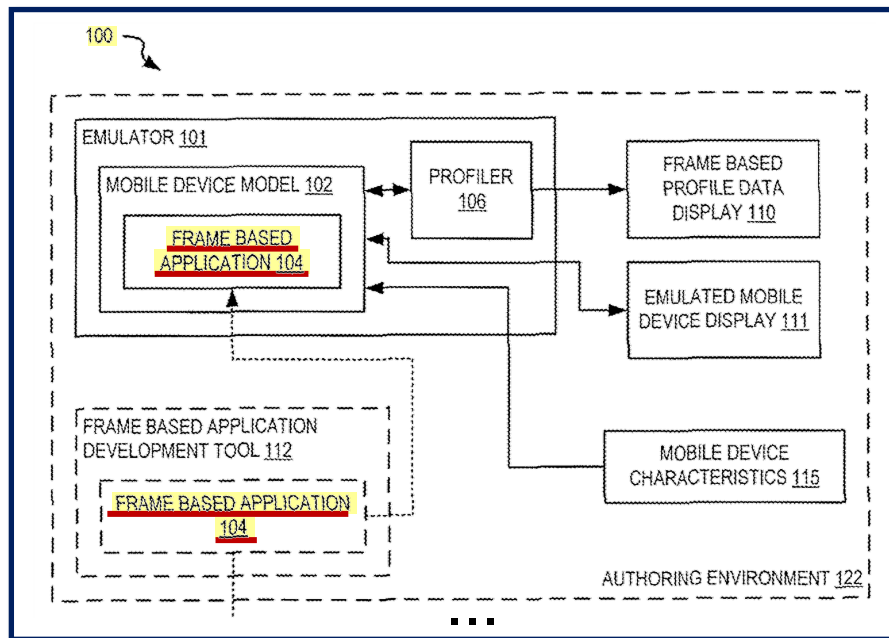
192 Patent, 5:14-21

Inventor equated “application **104**” and “frame based application **104**” in the same paragraph:

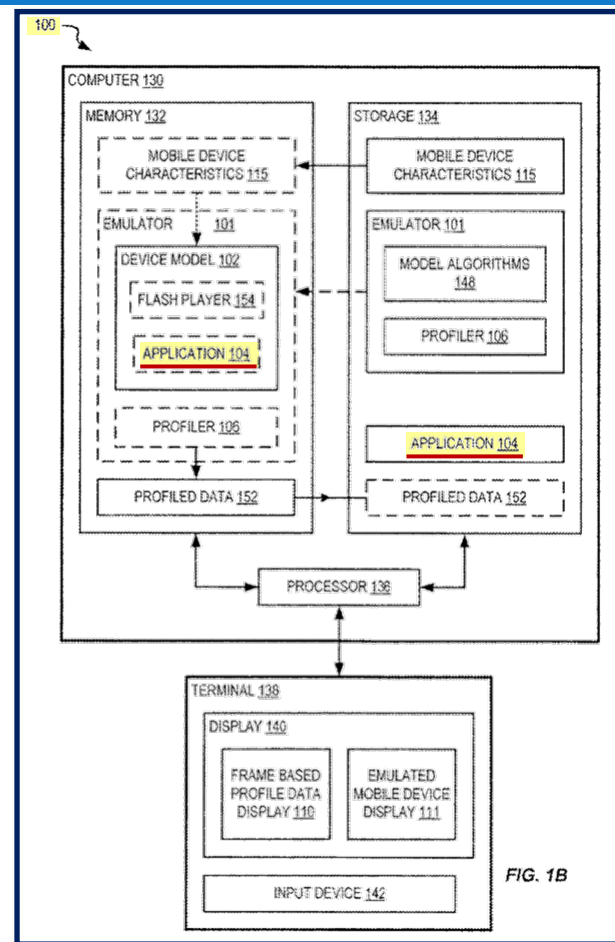
FIG. 1A shows one exemplary embodiment of a system **100** for emulating and profiling a frame based application **104** playing on a mobile device **114** that includes a Flash Player **116**. System **100** is shown with an emulator **101**, a profiler **106** and a display **110**. Emulator **101** generates a mobile device model **102**, based upon mobile device characteristics **115** of mobile device **114**. Model **102** emulates mobile device **114** to play frame based application **104** and may, for example, generate an emulated mobile device display **111** that represents mobile device **114**. Emulated mobile device display **111** may be interactive to allow a user to interact (in a manner similar to interacting with device **114**) with applica-  
tion **104** while playing within model **102**.

# Figures Interchangeably Use “Application 104” And “Frame Based Application 104”

Case 4:25-cv-01937-ALM Document 73-1 Filed 11/08/24 Page 15 of 57 PageID #: 7952



192 Patent, Fig. 1A (partial)



192 Patent, Fig. 1B

# Precedent Confirms Inventor Equated “Application” And “Frame Based Application”

Case 4:23-cv-01137-ALM Document 73-1 Filed 11/06/24 Page 16 of 57 PageID #: 7953

In this case, the specification consistently uses the words “graft” and “intraluminal graft” interchangeably. **It states that “an intraluminal graft as defined above” is carried through a catheter “until the graft extends into the vessel.”** 458 patent col. 1 ll. 57–59; *see also id.* at col.5 ll. 11, 17, 21, 24, 26, 27, 55, 58, 64, 65, 67, col. 6 ll. 1, 9 (interchangeably referring to the device identified by numeral 10 as “graft 10” and “intraluminal graft 10.”). The interchangeable use of the two terms is **akin to a definition equating the two.**

*Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009)

Profiler 106 monitors playing of frame based application 104 within model 102 to estimate resource usage of application 104 and generates a frame based profile data display 110.

HELD:

“We hold that the proper construction of **‘camera unit’ requires** that the camera unit include a **‘camera, optics, and an image processing unit.’”**  
*Ironworks Pats. v. Samsung Elecs.*, 798 F. App'x 621, 624 (Fed. Cir. 2020)

WHY:

“A camera unit as **expressly defined** in the specification includes a camera, optics, and an image processing unit. *Id.* at **3:14–18.**” *Id.* at 626

HOW:

“The specification **consistently refers to camera unit 14** which includes camera arrangement 14o (comprising **camera 14a** and **optics 14b**) and **image processing unit 14c**.... See, e.g., '078 patent at **3:14–18**, 3:22–26, 5:23–25. For example, the specification describes **‘[c]amera unit 14**, which is represented in the form of a block diagram in FIG. 5, consists of camera arrangement 14[o] which comprises **camera 14a** provided with suitable **optics 14b**, and **image processing unit 14c** connected to the camera arrangement.” '078 patent at **3:14–18**.... And **throughout the specification**, the camera unit and its components are **identified using a numbering convention that associates those components with the number 14**. The specification refers to ‘camera unit 14’ and its components as ‘camera 14a,’ ‘optics 14b,’ and ‘image processing unit 14c.’”

*Id.* at 625

“[T]he **location** within the specification in which the definition appears **is irrelevant.**”

*Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009)

“The specification is always highly relevant to the claim construction analysis. Usually, it is **dispositive; it is the single best guide** to the meaning of a disputed term.”

*Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005)

“The **only meaning that matters** in claim construction is the **meaning in the context of the patent.**”

*Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016)

Early frontrunners like Java, .NET and BREW have taken great strides in the early/formative years, the likes of Surf-Kitchen, Action Engine, MFORMA and others taking SMS, MMS and mobile gaming to exciting consumer levels. However, with a market primarily based on the Java and J2ME platform, mobile content and entertainment revenues achieved less than 3% of the total mobile service revenue and less than 19% of non-voice revenue.

Is this a failure? Based on current market projections and a

192 Patent, 3:40-48



Wapp:

application.” Malek Dec. ¶¶144-46. For example, Claim 20 of the '864 Patent recites “[a] method for emulating an *application*” whereas Claim 31 of the '864 Patent recites “[a] method for emulating a *frame-based application*.” The patentee explicitly limited certain claims to “frame-based” applications, and explicitly declined to limit other claims in this way.

Dkt. 64 at 17

Federal  
Circuit:

“We further agree with Cook that claim differentiation **does not require** that ‘graft’ be read differently from ‘intraluminal graft.’ When different words or phrases are used in separate claims, a difference in meaning is presumed. However, **simply noting the difference** in the use of claim language **does not end the matter. Different terms or phrases in separate claims may be construed to cover the same subject matter where the written description** and prosecution history **indicate that such a reading of the terms or phrases is proper.**”

*Edwards Lifesciences*, 582 F.3d at 1330

31. A method for emulating a frame-based application playing on a mobile device that includes an application player, the method comprising:

- retrieving characteristics indicative of performance of the mobile device; emulating, on a processor extrinsic to the mobile device, the mobile device as a model based upon the retrieved characteristics; playing the application in real time within the model; monitoring the application playing in the model to determine utilization of the mobile device's resources by the application; identifying a frame of the application where resource utilization by the application exceeds a maximum resource availability threshold of the mobile device; and displaying the identified frame to indicate a crash of the application on the emulated mobile device.

864 Patent, claim 31

“This **single sentence** in the specification **cannot overcome the overwhelming evidence in other parts of the specification** and the provisional application (described above) **demonstrating that the intended definition** of this term does not include information other than machine code instructions. The **patentee cannot rely on its own use of inconsistent and confusing language** in the specification **to support a broad claim construction which is otherwise foreclosed.**”

*Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016)

FIG. 14 is a flowchart illustrating one method for determining whether an application of a mobile device is operable. In step 1402, method 1400 downloads characteristics over Internet for one or more mobile devices to be emulated. In step 1404, method 1400 tests the application for the mobile devices, via the Internet, using an emulator to determine if the application is operable on the mobile device.

192 Patent, 4:34-40

30. A method for determining whether an application for a mobile device having an application player is operable on the mobile device, comprising:

downloading, over the Internet, characteristics indicative of performance of the mobile device to be emulated; and emulating, via a personal computer, the mobile device, based on the characteristics to determine if the application is operable by the application player on the mobile device;

wherein the step of emulating comprises playing the application in real time using the application player within the model.

910 Patent, claim 30

FIG. 5 shows one exemplary window 500 that includes display 300 of FIG. 3 and display 400 of FIG. 4 and an exemplary user interface. In particular, window 500 shows selection of a mobile device (i.e., NOKIA 3650 in this example) from a pull-down list 502 that results in display of characteristics 504 of the selected mobile device. Characteristics 504 may represent characteristics 115 of FIG. 1A, for example. Window 500 facilitates interaction with model 102 through display 400 and monitoring of resource utilization of application 104 through window 300. Further, pull-down list 502 allows easy selection of further mobile devices upon which application 104 is to be profiled.

192 Patent, 9:5-17

Window 1200 shows a pull-down list 1202 of network characteristics that may be simulated by simulator 810. For example, simulator 810 may allow control of scripted events (e.g., cell tower identification, service message, bandwidth, etc.), consumer events (e.g., checking email, checking messages, browsing network, available minutes, selecting images, etc.) and incoming events (e.g., phone calls, WAP Messages, receiving MMS, receiving SMS, etc.). Based upon selection from list 1202, a second list may be presented to allow further simulation requirements to be entered. In the example of window 1200, consumer events entry of list 1202 was selected, resulting in display of pull-down list 1204 from which check messages was selected resulting in the display of pull-down list 1206. In this example, the user may select 'send message' from list 1206 to evaluate the performance of application 104 while a message is received from the network.

192 Patent, 12:3-20

FIG. 9 shows one exemplary window 900 for selecting operator networks based upon geographic location. Window 900 shows a menu item 902 that, upon selection by the user, displays a world map 904 that allows the user to select a geographical region in which mobile device 114 is to operate.

192 Patent, 11:49-53

“Representations during prosecution cannot enlarge the content of the specification.”

*Biogen, Inc. v. Berlex Labs, Inc.*, 318 F.3d 1132, 1140 (Fed. Cir. 2003)

“Where, as here, the written description clearly identifies what his invention is, **an expression by a patentee during prosecution that he intends his claims to cover more than what his specification discloses is entitled to little weight.**”

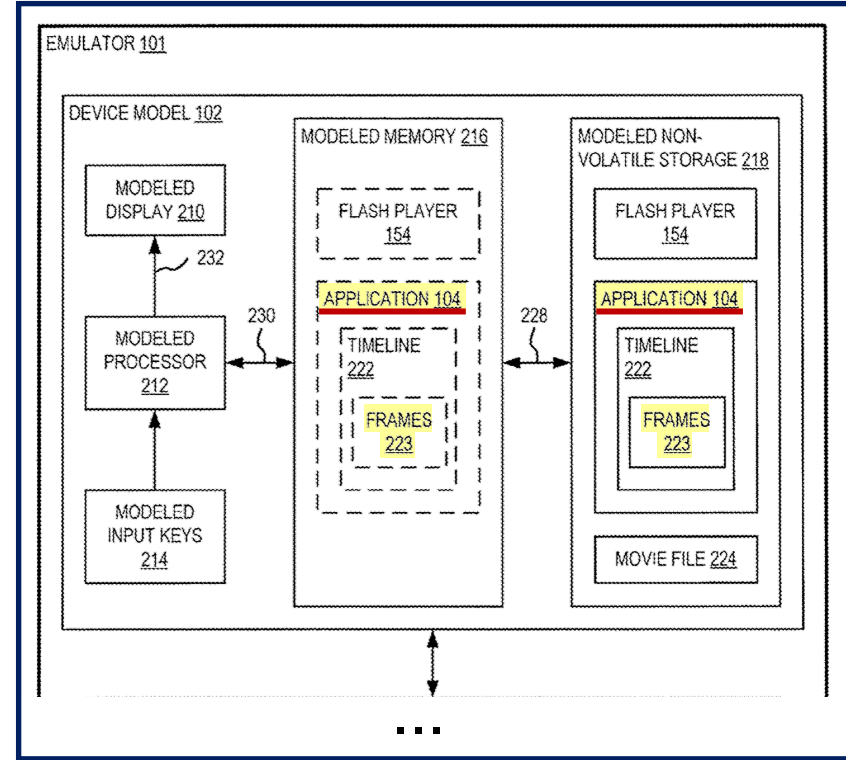
*Honeywell Int’l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318-19 (Fed. Cir. 2006)

terminal 138. In particular, frame based profile data 110 may be used to identify areas within application 104 where upon playing of application 104 within mobile device 114, performance of mobile device 114 would be stressed. Thus, areas

192 Patent, 7:17-20

Flash applications are based upon a timeline of frames that may include graphical information and action scripts, FS Commands, network protocols, selected frame rate, etc. Flash Player 116 within mobile device 114 thus operates upon a time line of frames within application 104 to provide graphical displays (e.g., animations, rich media content) upon display 118. Accordingly, profiled data 152 may also be based upon the timeline and frames of application 104 and displayed (e.g., frame based profile data 110) as resource utilization related to one or more of: timeline, frames and processing performance of action scripts.

192 Patent, 7:60-8:3



192 Patent, Fig. 2 (partial)

JPMC's Construction	Wapp's Construction
Indefinite	Plain meaning

“...network characteristics indicative of performance of the mobile device...”

192 Patent, claim 1; 864 Patent, claim 1

“...operator network characteristics, including at least bandwidth availability, indicative of performance of the mobile device...”

678 Patent, claim 1



# Prior Constructions Do Not Support Definiteness

Term or Phrase	Prior Construction	JPMC's Construction
Network characteristics	Plain and ordinary meaning	Plain and ordinary meaning
Indicative of	Plain and ordinary meaning	Plain and ordinary meaning
Network characteristics indicative of performance of the mobile device	Not construed	Indefinite

44. (Currently Amended) A system for developing an application for a mobile device comprising:

a software authoring interface configured to simultaneously visually emulate, via one or more profile display windows, a plurality of **network hardware characteristics** indicative of performance of the mobile device when executing the application; wherein the software authoring interface is further configured to simulate a network connection state encountered by the mobile device.

Exhibit D at 8 of 13

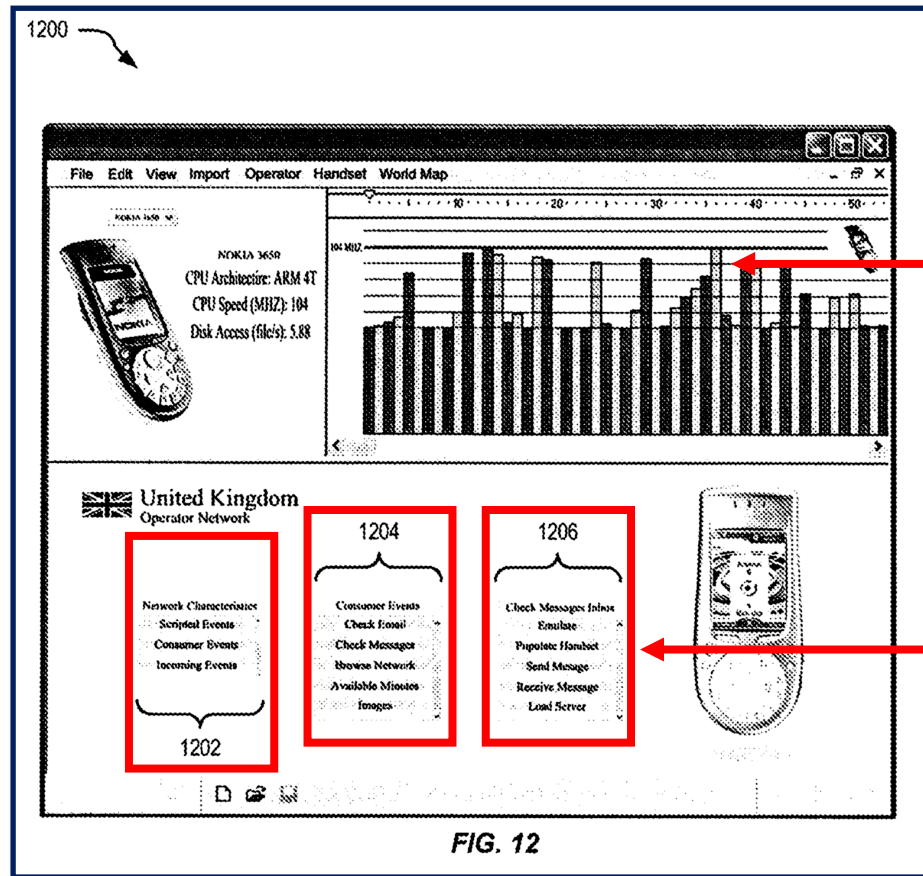
As both parties have noted, the patent claims and specification generally use the term “emulate” to refer to a “mobile device” and the term “simulate” to refer to “network characteristics.”

...

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<sup>1</sup> Wapp agrees with Defendants that the use of “emulate” to refer to “network characteristics” in claim 1 of the ’192 patent was an editing error during prosecution. (*See* Defendants’ Defendants’ Claim Construction Brief, at 17 n.10, and Defendants’ Claim Construction Slides at 94-96.) That claim should recite the term “simulate” to refer to “network characteristics.” Whether the Court corrects the relevant language or finds that claim invalid for lack of written description, as Defendants have raised, is an issue for later adjudication.

Exhibit A, page 3



profiled hardware characteristics

"network characteristics"

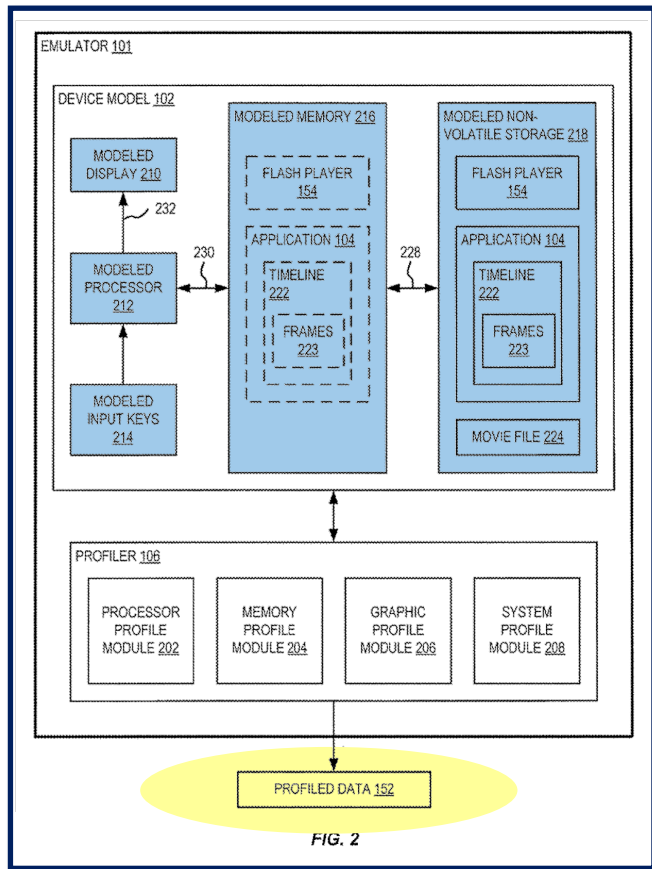
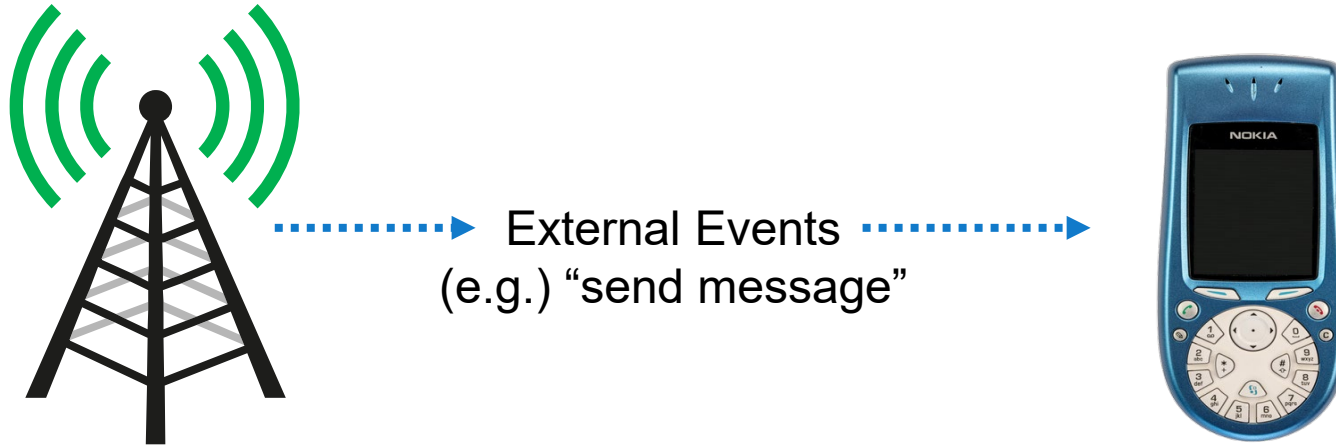


FIG. 2

utilized by application 104. Profiled data 152 may be stored (as shown in dashed outline) within storage 134 and/or displayed as frame based profile data 110 on display 140 of terminal 138. In particular, frame based profile data 110 may be used to identify areas within application 104 where upon playing of application 104 within mobile device 114, performance of mobile device 114 would be stressed. Thus, areas

192 Patent, 7:14-20



**12.** The system of claim 1, wherein the software authoring interface is configured to allow a user to simulate an incoming sms message.

192 Patent, claim 12

JPMC’s Construction	Wapp’s Construction
Indefinite	Plain and ordinary meaning

15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

select one or more characteristics associated with a mobile device;

monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;

display a representation of one or more of the monitored resource;

correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;

initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

1. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

- display a list of one or more mobile device types from which a user can select;
- simulate one or more characteristics of a selected mobile device type;
- initiate loading of at least one of the selected characteristics from at least one of a remote server and a computer-readable media;
- monitor utilization of one or more resources of the selected mobile device type over time as an application is running;
- display a representation of one or more of the monitored resources.

579 Patent, claim 1

15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

- select one or more characteristics associated with a mobile device;
- monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;
- display a representation of one or more of the monitored resource;
- correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;
- initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

579 Patent, claim 15



# Wapp Argued That “Selected Characteristics” Means “Characteristics Of The Selected Mobile Device Type”

It is readily apparent from the context of the claim itself that the phrase “the selected characteristics” finds its antecedent basis in the “one or more characteristics of a selected mobile device type.” The claim lets a user *select* a mobile device type and the *selected* mobile device type has associated *characteristics*. Therefore, the characteristics of the selected mobile device type are the *selected characteristics*. This is how a POSITA would understand the term—there is no ambiguity. Ex. 7 at ¶84. The specification’s description of Figure 6 is also consistent with this understanding. ’579 Pat. at 9:20-22 (“a user of window 500 *selects a mobile device* using pull-down list 502 and emulator 101 *loads mobile device characteristics* 115 into memory 132.”).

Wapp’s Brief in Bank Cases, at 26



F.3d at 1323. Also, Plaintiffs propose inferring that “the characteristics of the selected mobile device type are the selected characteristics” (Dkt. #73 at p 26), but this proposed inference lacks any persuasive support. Moreover, this suggested inference is unclear as to which characteristics are selected (or, if this inference is intended to refer to *all* characteristics, this inference is unclear as what “all” characteristics would mean in this context).

Bank Cases Order, at 41

15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

select one or more characteristics associated with a mobile device;

monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;

display a representation of one or more of the monitored resource;

correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;

initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

579 Patent, claim 15

In step 602, method 600 loads characteristics defining hardware attributes and performance of the mobile device. In one example of step 602, a user of window 500 selects a mobile device using pull-down list 502 and emulator 101 loads mobile device characteristics 115 into memory 132.

In step 604, method 600 emulates the mobile device using a model based upon the characteristics. In one example of step 604, emulator 101 generates device model 102 based upon mobile device characteristics 115.

In step 606, method 600 loads the application into the model. In one example of step 606, emulator 101 loads application 104 into device model 102.

In step 608, method 600 plays the application within the model. In one example of step 608, emulator 101 plays application 104 within model 102.

579 Patent, 9:18-32

In one embodiment, maps 904, 908 and lists 1004, 1104, 1202, 1204 and 1206 are based upon information received by operator interface 802 from one or more operator development servers 808. Thus, functionality of model 102 and selectable simulations of simulator 810 may be easily updated by the operator as new mobile devices are created without requiring updates to software of emulator 101.

Optionally, the user may select menu item 901, FIG. 9, to immediately locate, download and import modeling characteristics into emulator 101. These characteristics may be stored within storage 134 of computer 130, FIG. 1B.

579 Patent, 12:21-31

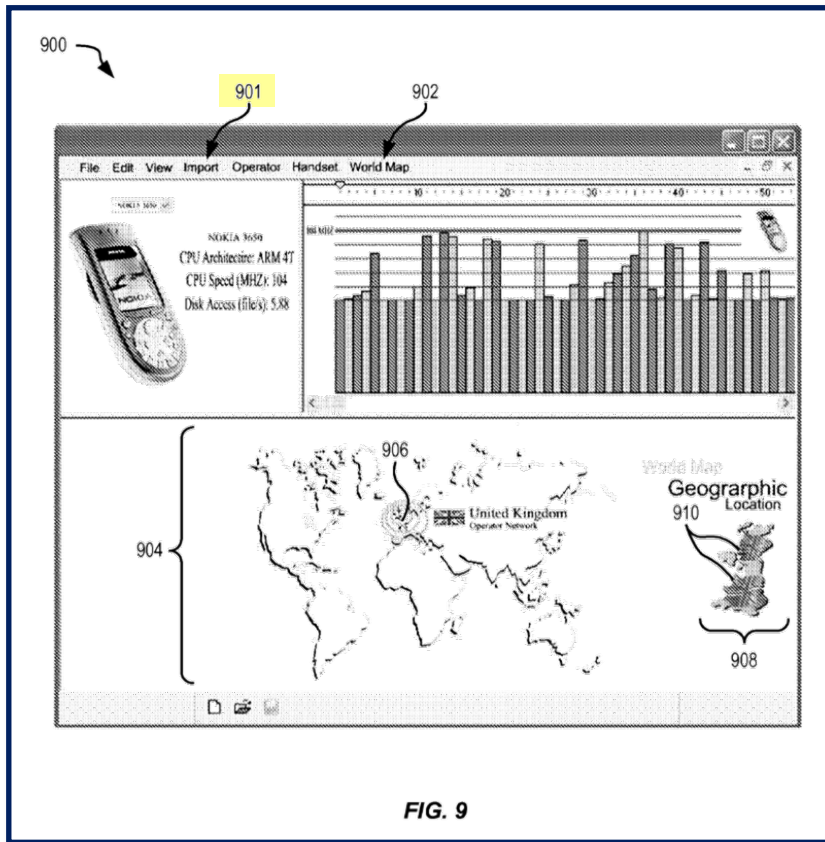


FIG. 9

579 Patent, Fig. 9

# Wapp's Embodiments Show Selecting A Mobile Device

Case 4:23-cv-01137-ALM Document 73-1 Filed 11/08/24 Page 40 of 57 PageID #: 1977

tion **104**. Specifically, model algorithms **148** define operation of mobile device **114** based upon mobile device characteristics **115**.

192 Patent, 5:52-54

For example, characteristics **115** may be included for each mobile device type targeted by application **104**. A user of system **100** may then select one or more target mobile devices from a list based upon available characteristics **115**. As appre-

192 Patent, 6:39-44

TABLE 1

## Mobile Device Characteristics

Parameter	Value
Name	NOKIA 3650
Processor	ARM 4T
Processor Speed	104 MHz
Storage Access Speed	5.88 files/second
RAM Size	256 MB
Storage Size	512 MB
Display Width	256
Display Height	394

192 Patent, 5:55-66

# "The Physical Mobile Device" Is Indefinite

JPMC's Construction	Wapp's Construction
Indefinite	Plain meaning

15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

- select one or more characteristics associated with a mobile device;
- monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;
- display a representation of one or more of the monitored resource;
- correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;
- initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:

- select one or more characteristics associated with a mobile device;
- monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;
- display a representation of one or more of the monitored resource;
- correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;
- initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

579 Patent, claim 15

## Does “the physical mobile device type” refer to

- Any physical mobile device?
- A specific physical mobile device?
- Any physical mobile device type?
- A specific physical mobile device type?

“Had [the inventor] simply wanted to claim [‘the mobile device instead of ‘the physical mobile device’], it could have done so.”

*Amgen Inc. v. Sandoz Inc.*, 923 F.3d 1023, 1031-32 (Fed. Cir. 2019)

Inventor knew how to claim “**the mobile device**” and  
**purposefully chose** to claim “**the physical mobile device**”

initiate transmission of the application on a simulation of the mobile device, or to that is  
~~being developed to one or more physical versions of the~~ **physical** mobile device, or both.

579 Patent Prosecution History, Ex. F at 13 of 16



“It is well settled that **no matter how great the temptations** of fairness or policy making, **courts do not redraft claims.**”

*Quantum Corp. v. Rodime, PLC*, 65 F.3d 1577, 1584 (Fed. Cir. 1995)

“Adopting [patentee’s] proposal would require rewriting the claims, but **it is not our function to rewrite claims to preserve their validity.**”

*Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021)

JPMC's Construction	Wapp's Construction
Indefinite	Plain and ordinary meaning

Claim never cites “a mobile device” or “on a mobile device”

60. A system comprising:  
an application configured to enable a user to modify a photo on the mobile device, wherein the application is developed using a software authoring platform configured to simultaneously visually emulate, via one or more profile display windows, a plurality of hardware characteristics indicative of performance of the mobile device when executing the application.

192 Patent, claim 60

60. A system comprising:  
an application configured to enable a user to modify a photo **on the mobile device**, wherein the application is developed using a software authoring platform configured to simultaneously visually emulate, via one or more profile display windows, a plurality of hardware characteristics indicative of performance of **the mobile device** when executing the application.

192 Patent, claim 60

- **Does “on the mobile device” refer to:**
  - A “system”?
  - An “application”?
  - A “user”?
  - Or “to modify a photo”?
- **Is it:**
  - Any mobile device?
  - Any mobile device type?
  - A selected mobile device type?
  - A physical device?
  - An emulated device?

“This court, however, **repeatedly and consistently** has recognized that **courts may not redraft claims**, whether to make them operable or **to sustain their validity**.”

*Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004)

“Had the inventors intended this limitation [“on a mobile device”], **they could have drafted the claims to expressly include it**.”

*i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 843 (Fed. Cir. 2010)

“Expert testimony may not be used to vary or contradict the claim language.”

*AFG Indus. v. Cardinal IG, Co.*, 239 F.3d 1239, 1249 (Fed. Cir. 2001)

“Patent draftsmanship **is an exacting art.**”

*Zenon Env’t, Inc. v. U.S. Filter Corp.*, 506 F.3d 1370, 1382 (Fed. Cir. 2007)

“A patent must be precise enough to **afford clear notice** of what is claimed.”

*Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014)

“The Court can ‘correct ‘on **the** mobile device’ to ‘on **a** mobile device’...”

Wapp’s Reply Brief, Dkt. 71 at 12

“Because the purported error is **more than a misspelling or a missing letter**, [plaintiff’s] request to modify the plain language is inappropriate.”

*Smartflash LLC v. Apple Inc.*, 77 F. Supp. 3d 535, 561 (E.D. Tex. 2014)

“**Nearly impossible standard** for judicial correction of a patent.”

*LG Elecs., Inc. v. Quanta Comp. Inc.*, 566 F. Supp. 2d 910, 13 (W.D. Wis. 2008)

# “The Connection Simulation” Is Indefinite

JPMC’s Construction	Wapp’s Construction
Indefinite	Plain meaning

2. The system of claim 1, wherein the software authoring interface is configured to enable a user to select from **one or more connection simulations** for testing how well mobile content performs on the mobile device.

192 Patent, claim 2

4. The system of claim 2, wherein **the connection simulation** includes one or more profiles.

192 Patent, claim 4



2. The system of claim 1, wherein the software authoring interface is configured to enable a user to select from one or more connection simulations ....

4. The system of claim 2, wherein the connection simulation includes one or more profiles.

3. The system of claim 2, wherein the one or more connection simulations ...

8. The system of claim 2, wherein the one or more connection simulations ...

9. The system of claim 2, wherein the one or more connection simulations ...

**The inventor knew how to refer back to “one or more connection simulations” when so desired.**

**“Plainly, then, had the inventors desired [“the connection simulation”] to include [“one or more” simulations], they could easily have included [those words] in the claim language. In the absence of their decision to do so, however, we will not take it upon ourselves to rewrite the claim in that way.”**

*Takeda Pharm. Co. Ltd. v. Zydus Pharms.*, 743 F.3d 1359, 1364 (Fed. Cir. 2014)

2. The system of claim 1, wherein the software authoring interface is configured to enable a user to select from one or more connection simulations for testing how well mobile content performs on the mobile device.

192 Patent, claim 2

4. The system of claim 2, wherein the connection simulation includes one or more profiles.

5. The system of claim 4, wherein the profiles include preset profiles.

192 Patent, claims 4 & 5

4. The system of claim 2, wherein the connection simulation includes one or more profiles.

192 Patent, claim 4

<b><i>Baldwin</i></b>	<b>192 Patent</b>
a pre-soaked fabric roll	one or more connection simulations
said fabric roll	the connection simulation

“... the limitations in claim 32 all **relate to proper antecedent basis**. Thus, the confusion or indefiniteness problem addressed by § 2173.05(e) does not arise in this claim.”

*Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008)

“Similarly, if two different levers are recited earlier in the claim, the recitation of ‘said lever’ in the same or subsequent claim would be unclear where it is uncertain which of the two levers was intended.”

*Baldwin*, 512 F.3d at 1343 (quoting MPEP § 2173.05(e))

